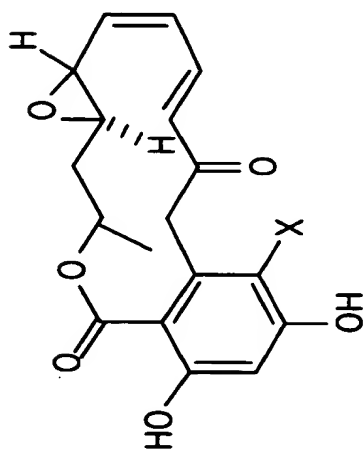
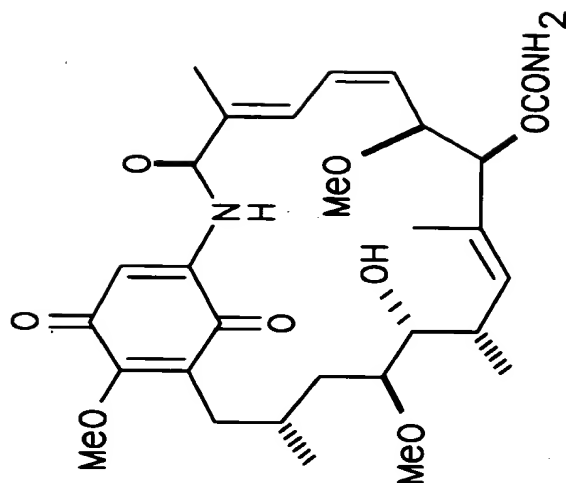


FIG. 1



X=Cl Radical (1)

X=H Monocillin I (2)



Geldanamycin (3)

FIG. 2

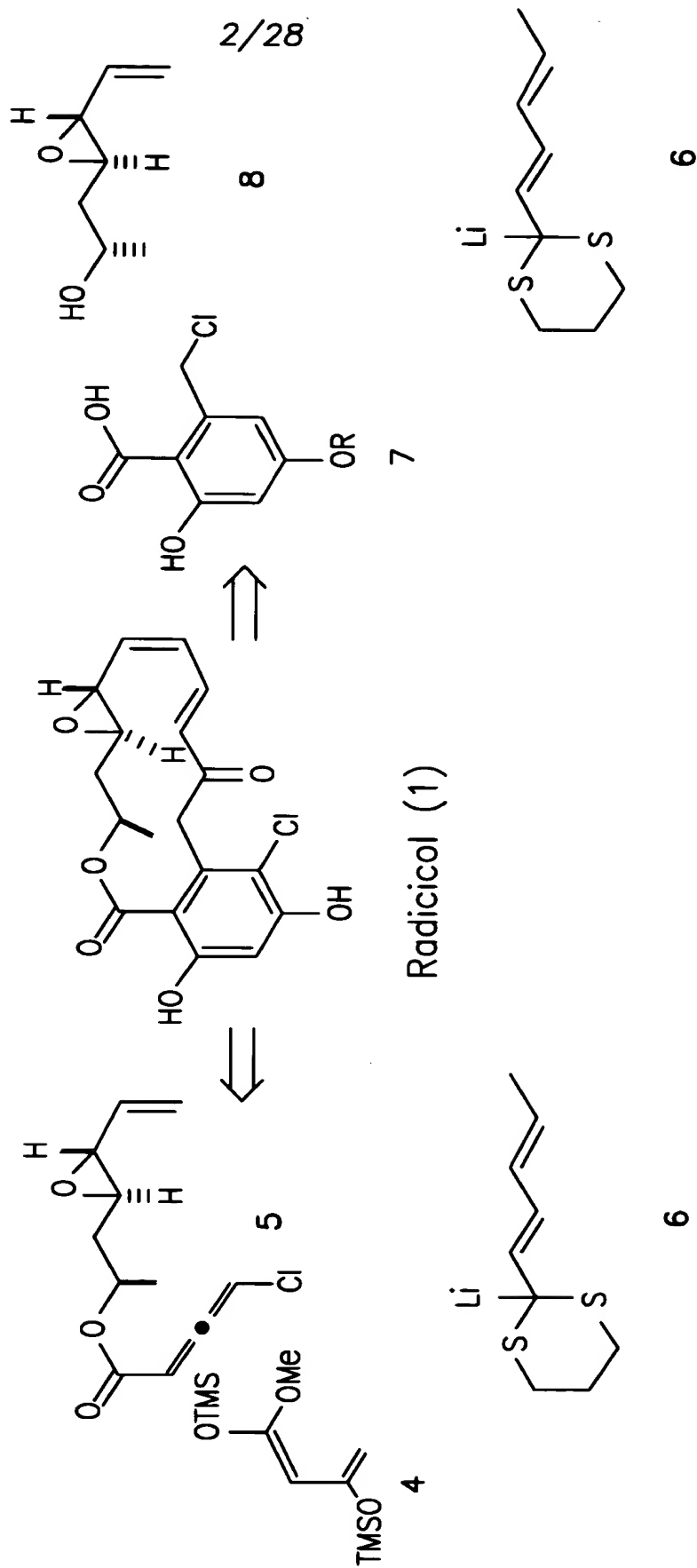
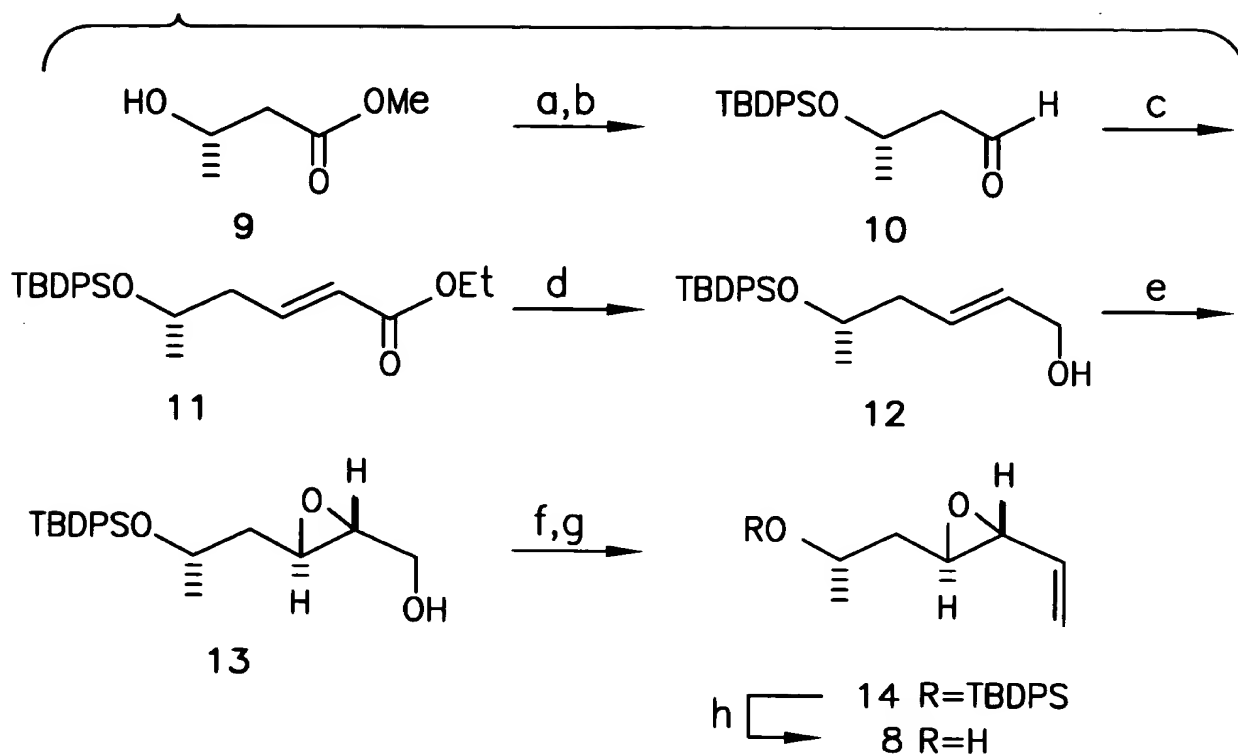


FIG.3

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- (a) TBDPSCl, imid., >95%; (b) DIBAL-H, -78°C , 92%;
 (c) LiCl, DIPEA $(\text{EtO})_2\text{P(O)CH}_2\text{CO}_2\text{Et}$, 95%;
 (d) DIBAL-H, -20°C , 96%; (e) (+)-DET, $\text{Ti}(\text{O}i\text{Pr})_4$, TBHP, 90%, >95% ee; (f) $\text{SO}_3^*\text{pyridine}$, Et_3N , DMSO, 90%;
 (g) $\text{PH}_3\text{PCH}_3\text{Br}$, NaHMDS, 0°C , 82%; (h) TBAF, 89%.

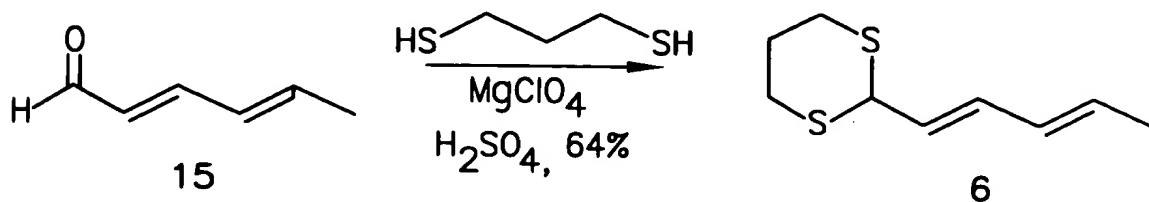
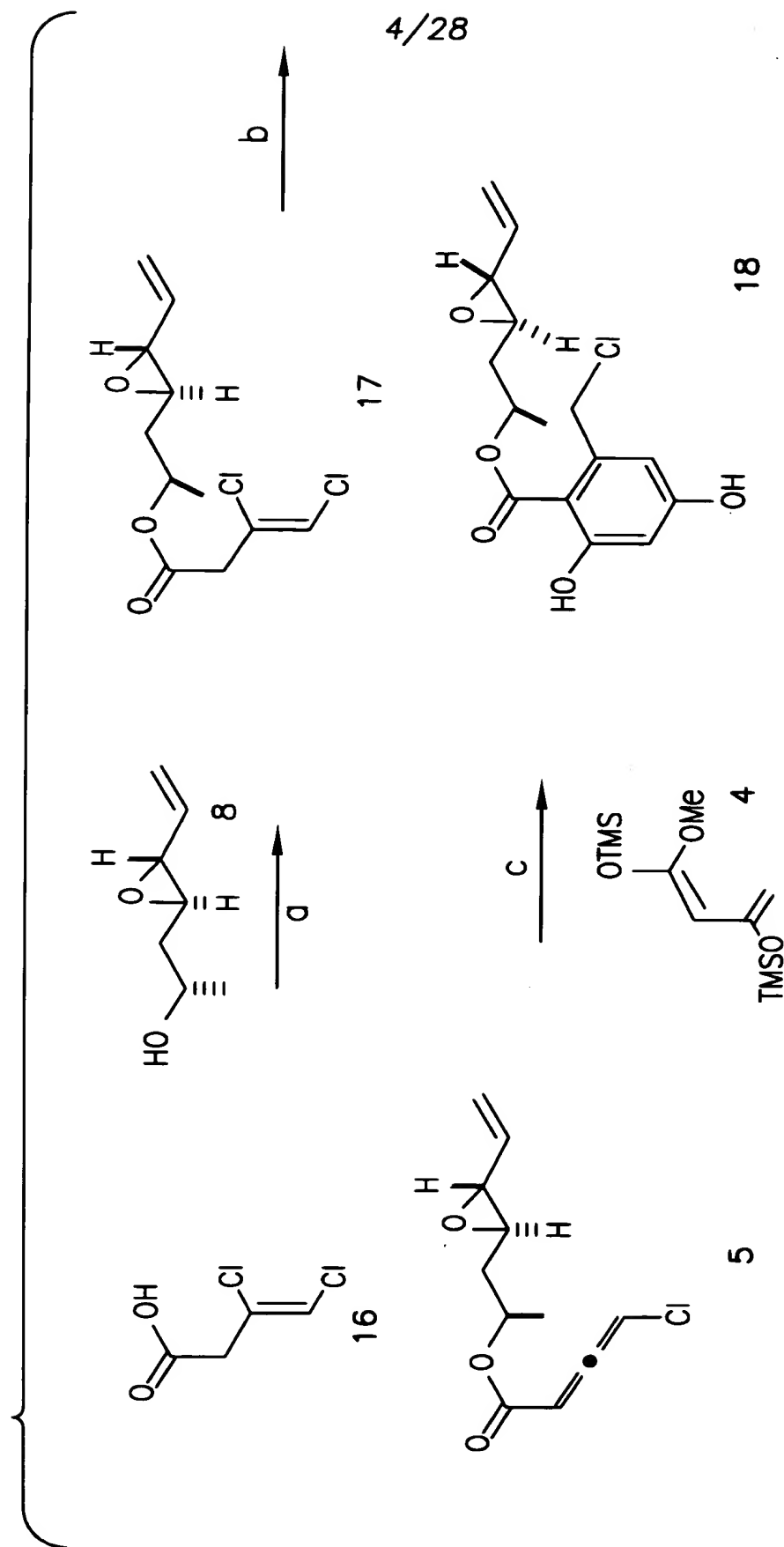


FIG. 4



(a) DEAD, PPh₃, 70%; (b) iPr₂NEt, 70%; (c) 50% (4:1)

FIG. 5

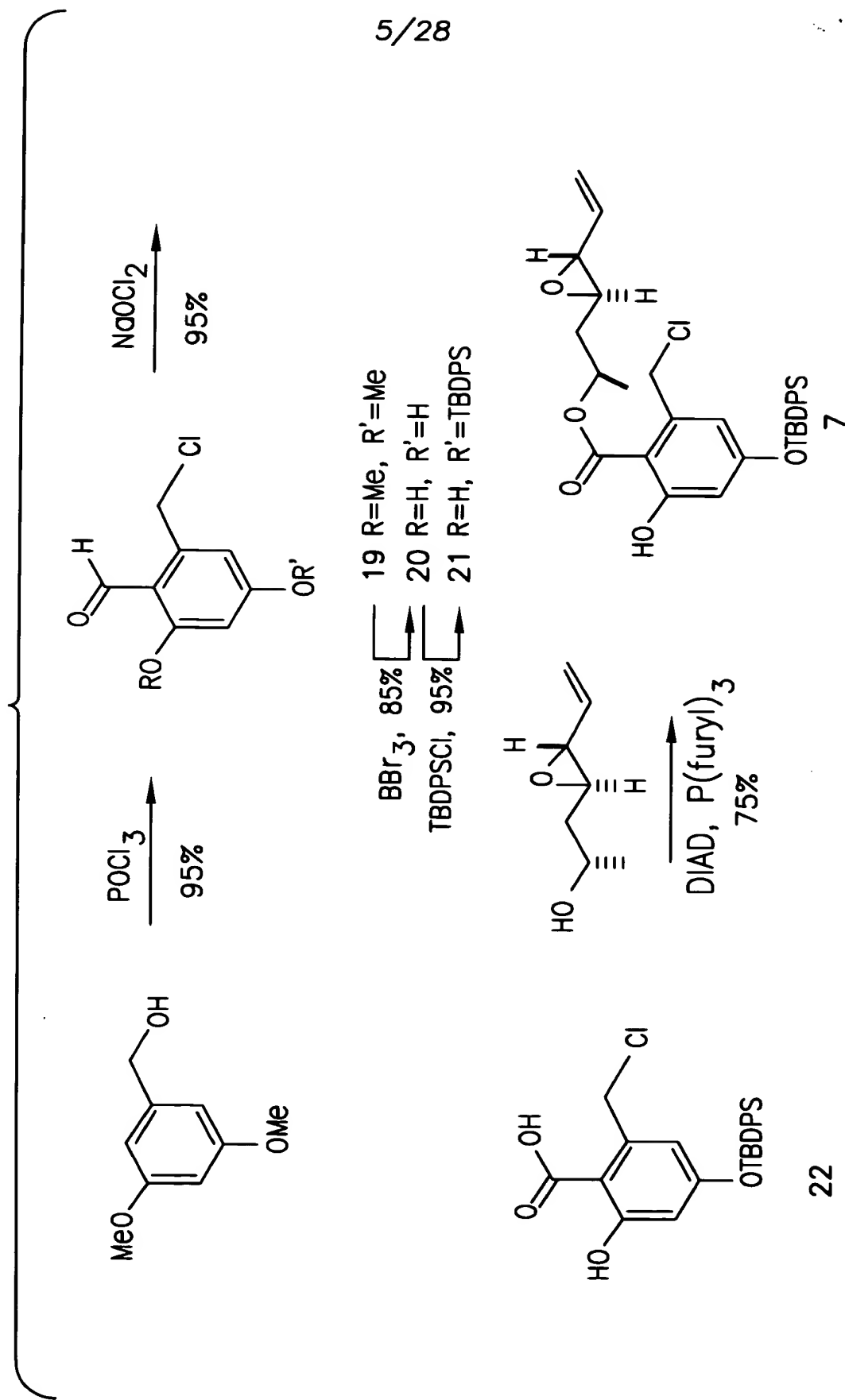
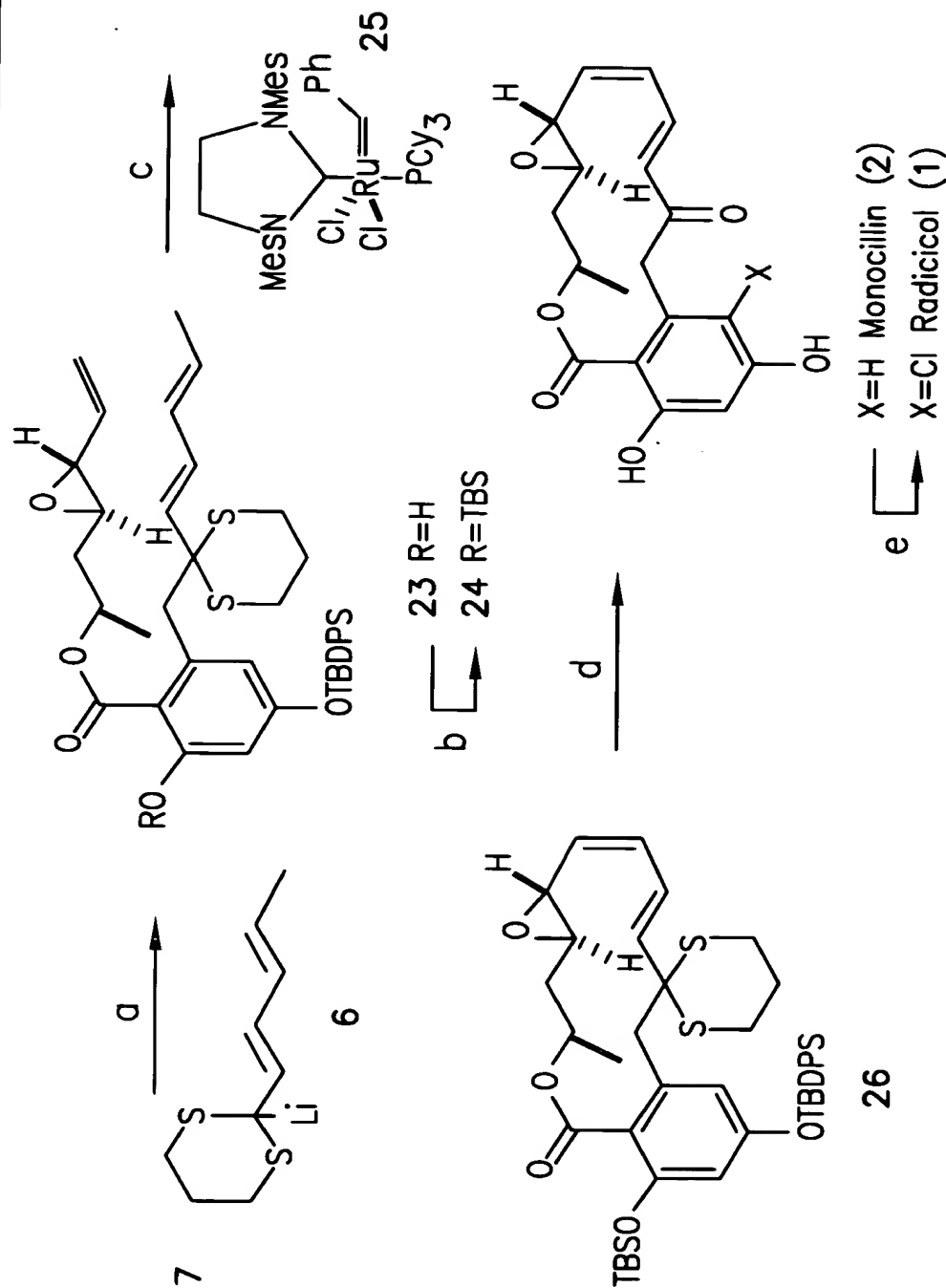


FIG. 6



a. *n*-BuLi, -78 °C, 50% (6:1); b. TBSCl, 83%; c. 42 °C, 70%; d. (i) mCPBA, (ii) Ac₂O, Et₃N, H₂O, 60 °C, (iii) NaHCO₃, MeOH, 60%; e. SO₂Cl₂, 50%

FIG. 7

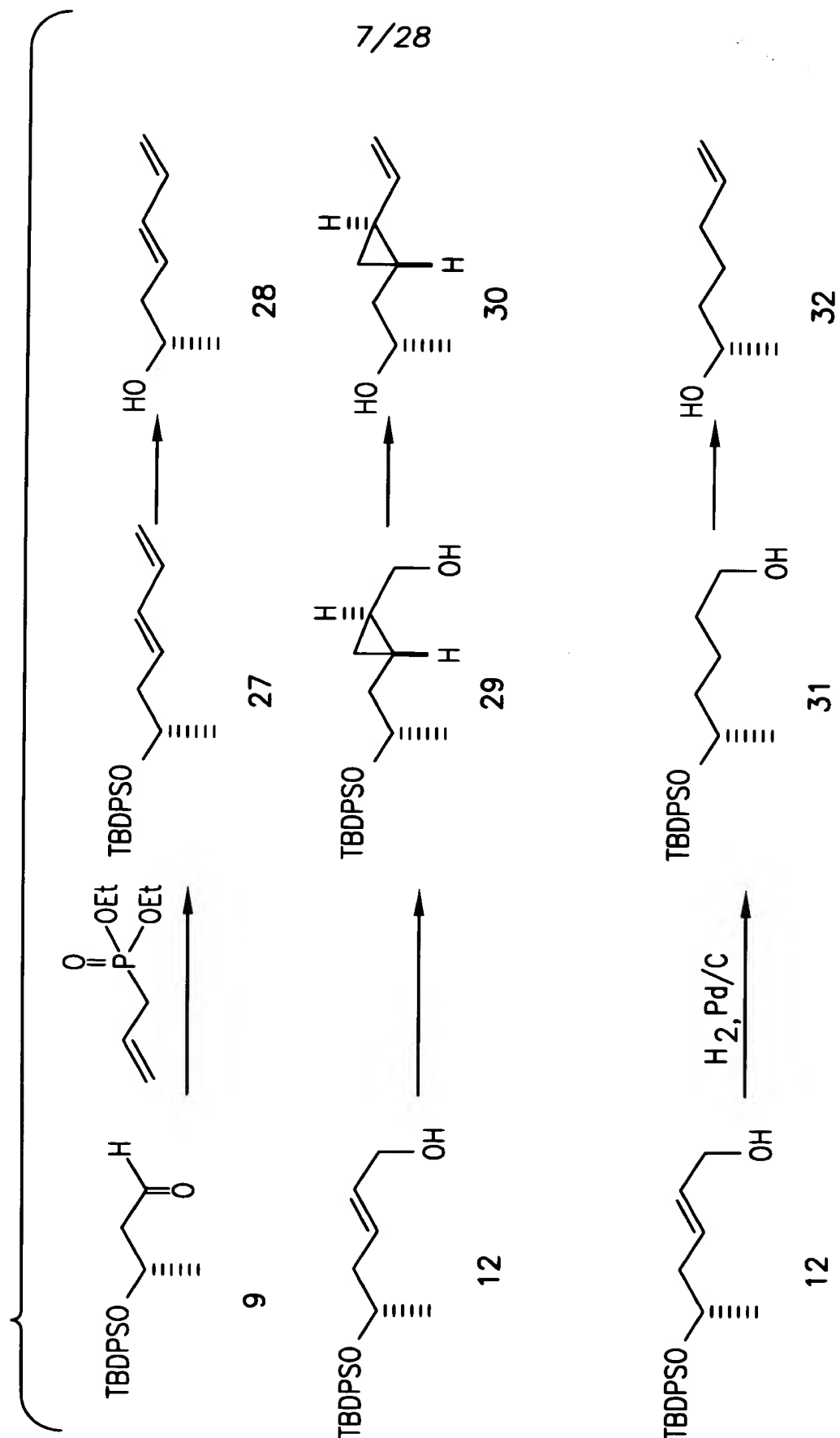


FIG. 8

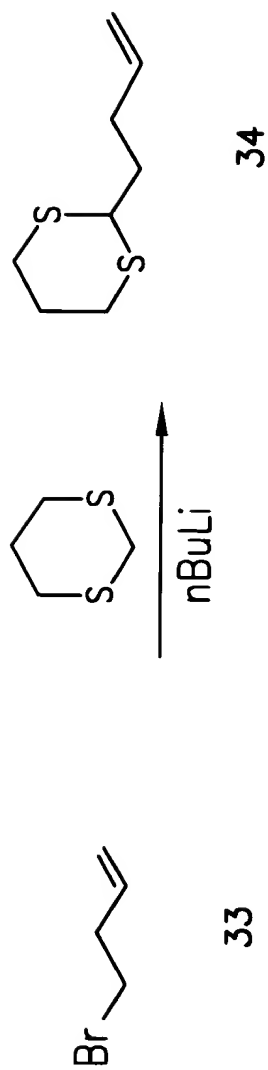


FIG. 9

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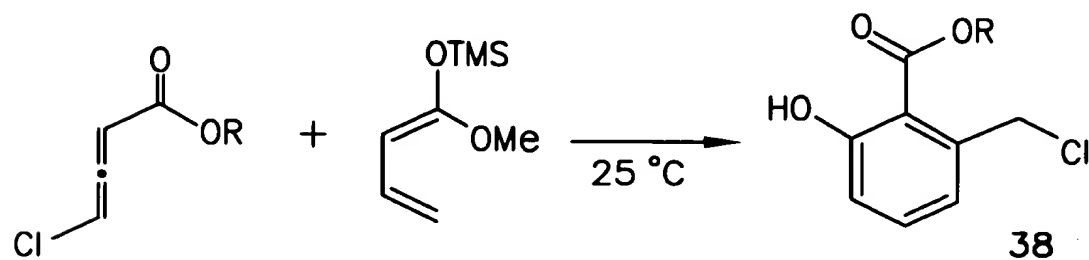
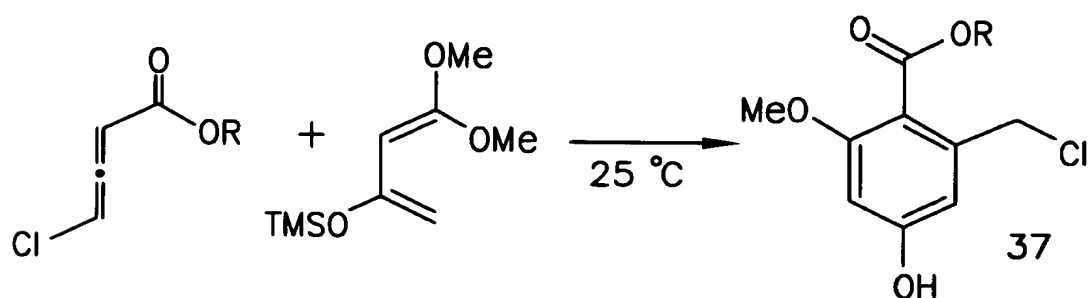
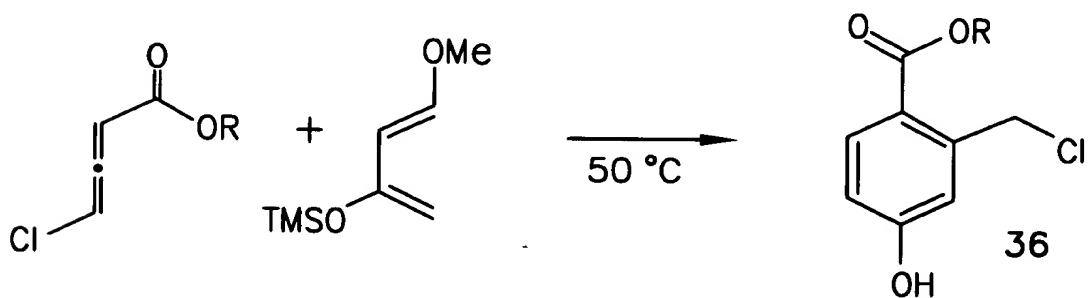
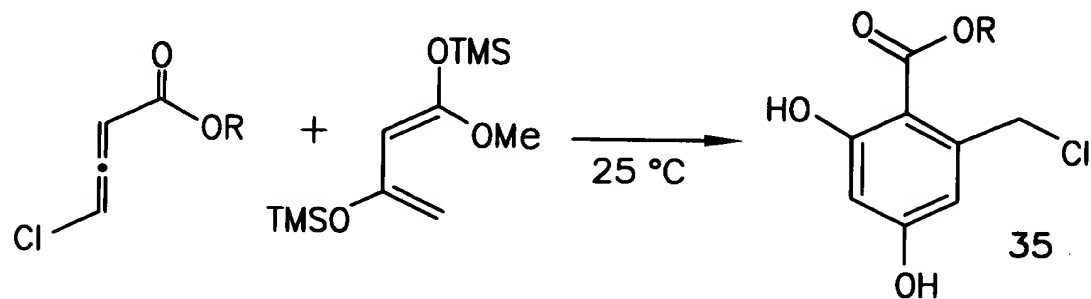
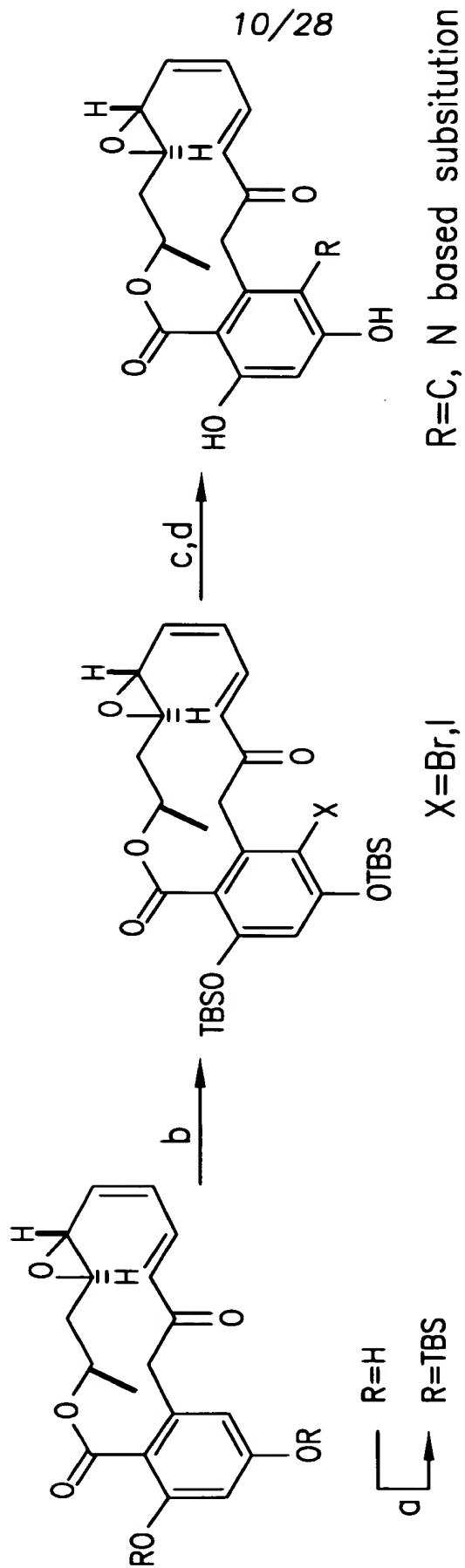
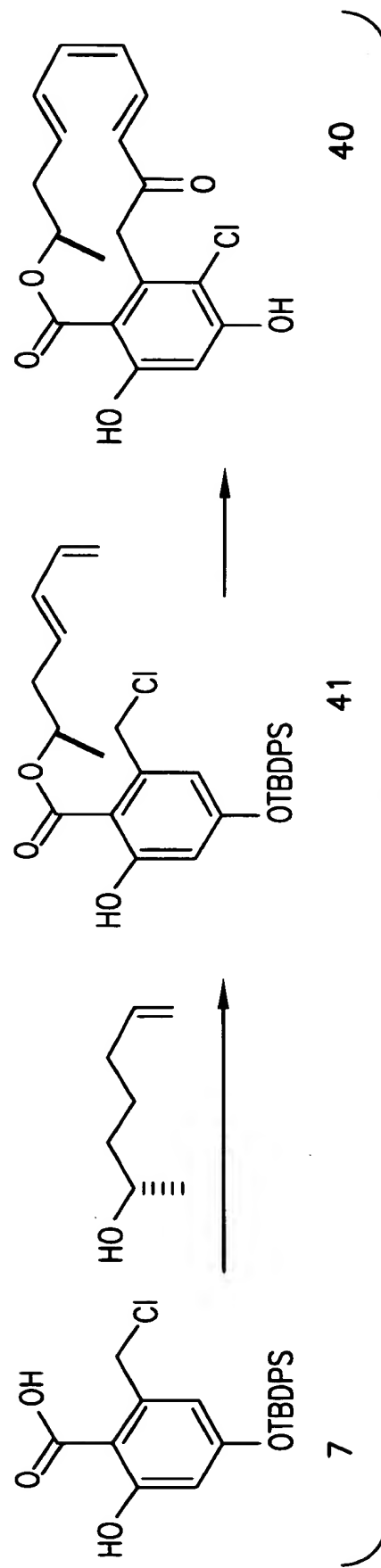
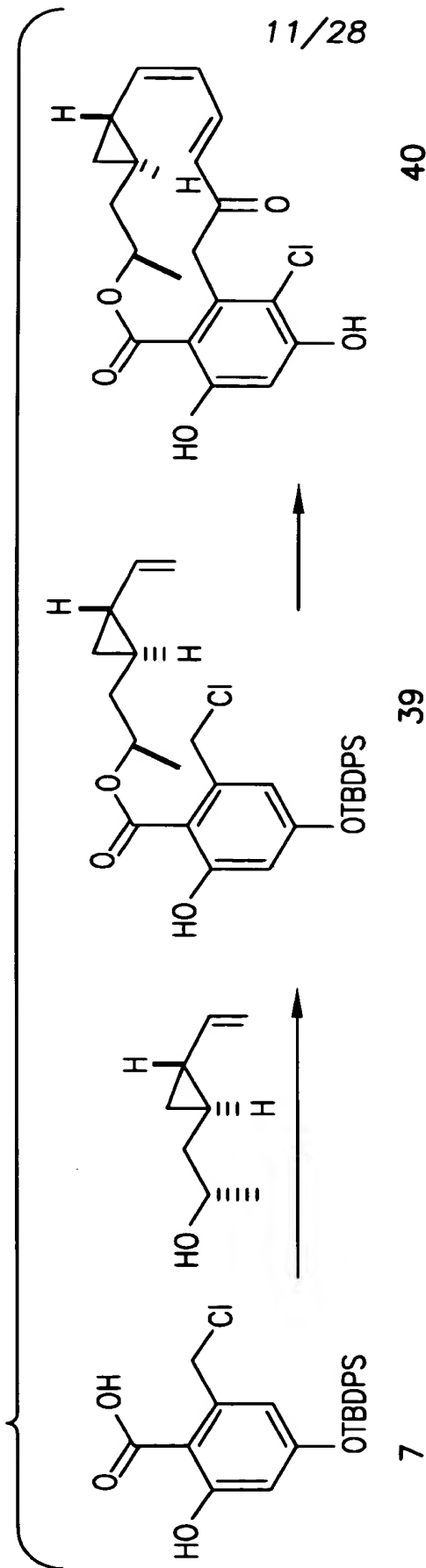


FIG. 10



a. TBSCl, pyridine; b. NIS or NBS, TsOH; c. $\text{Pd}(\text{PPh})_3$, RSnBu_3 , d. nBu_4NF

FIG. 11-1



TO FIG. 11-2

FROM FIG. 11-1

FIG. 11-2

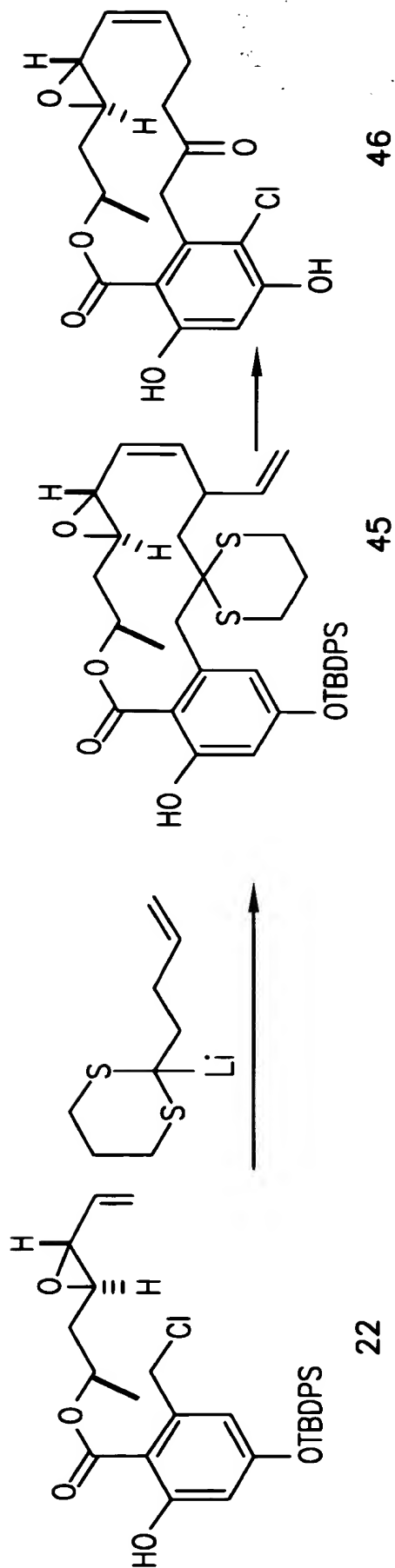
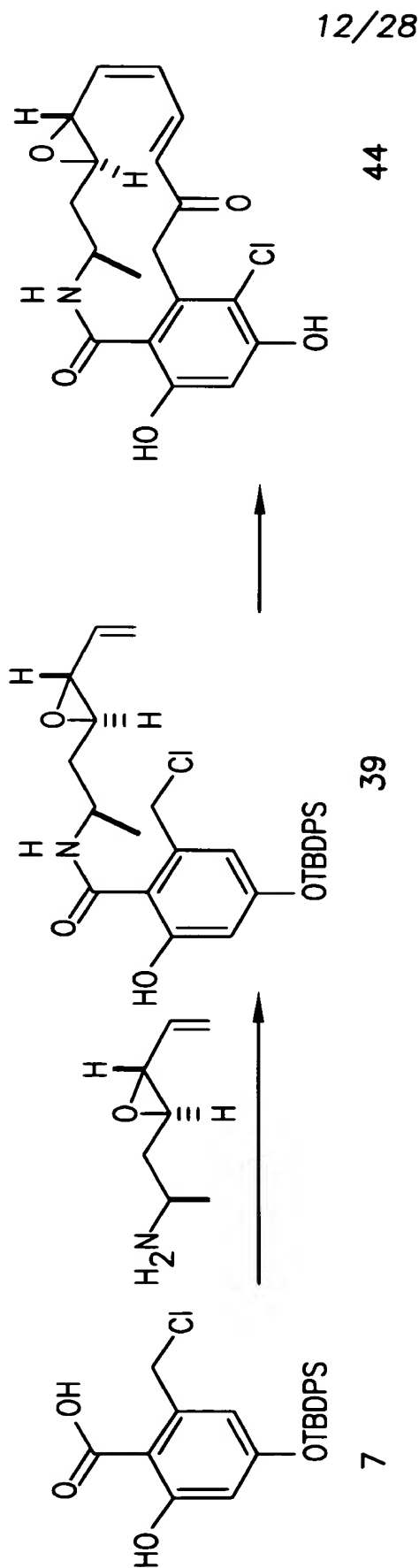
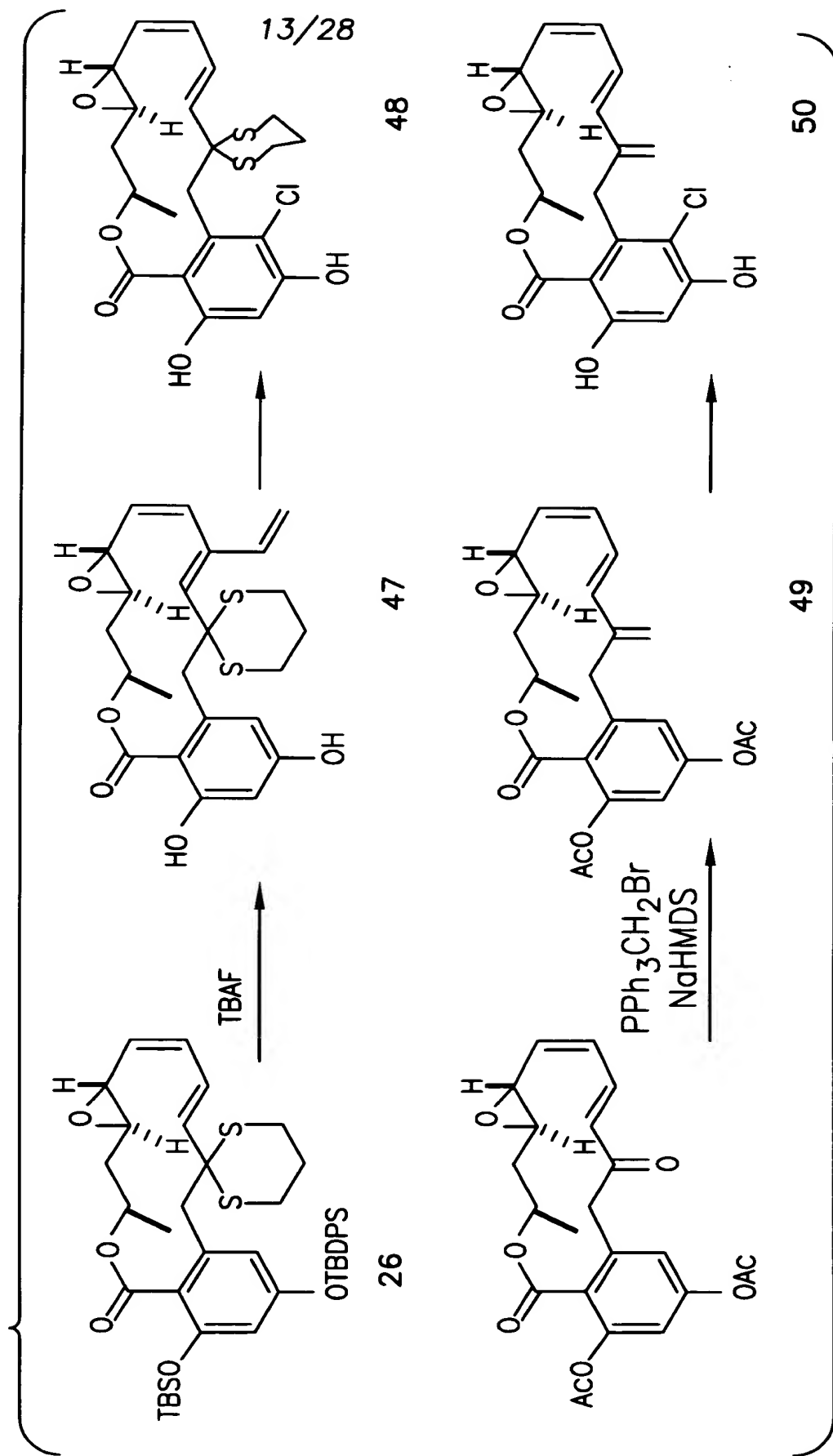


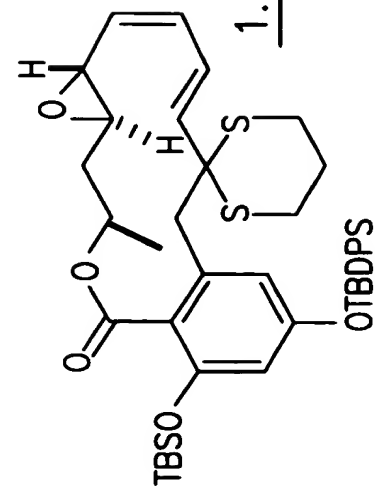
FIG. 12-1



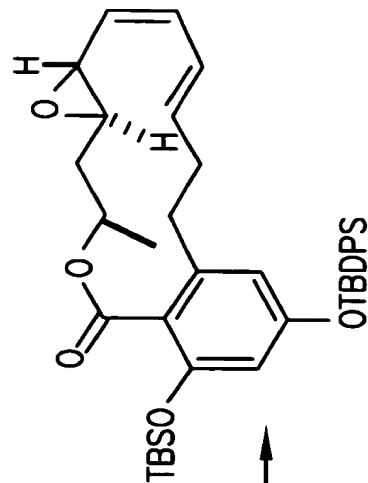
TO FIG. 12-2

FROM FIG. 12-1

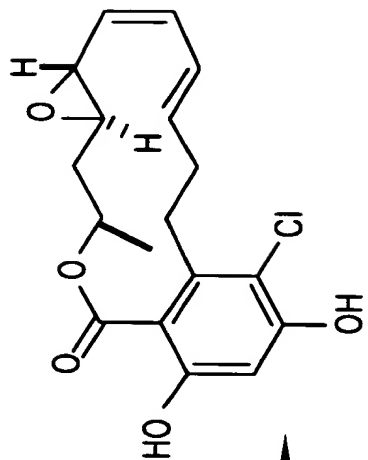
FIG. 12-2



1. Rainey Ni

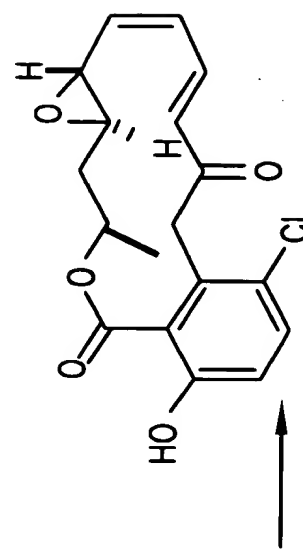
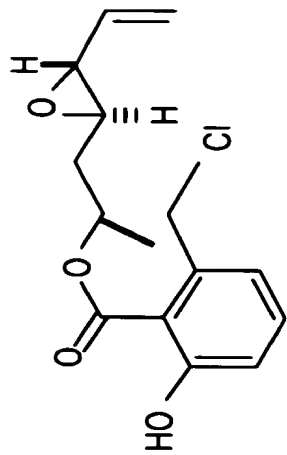
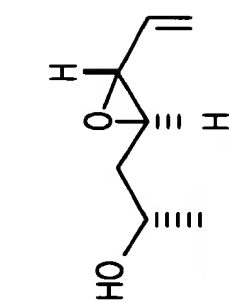
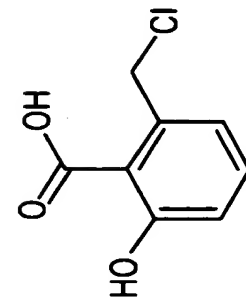


51



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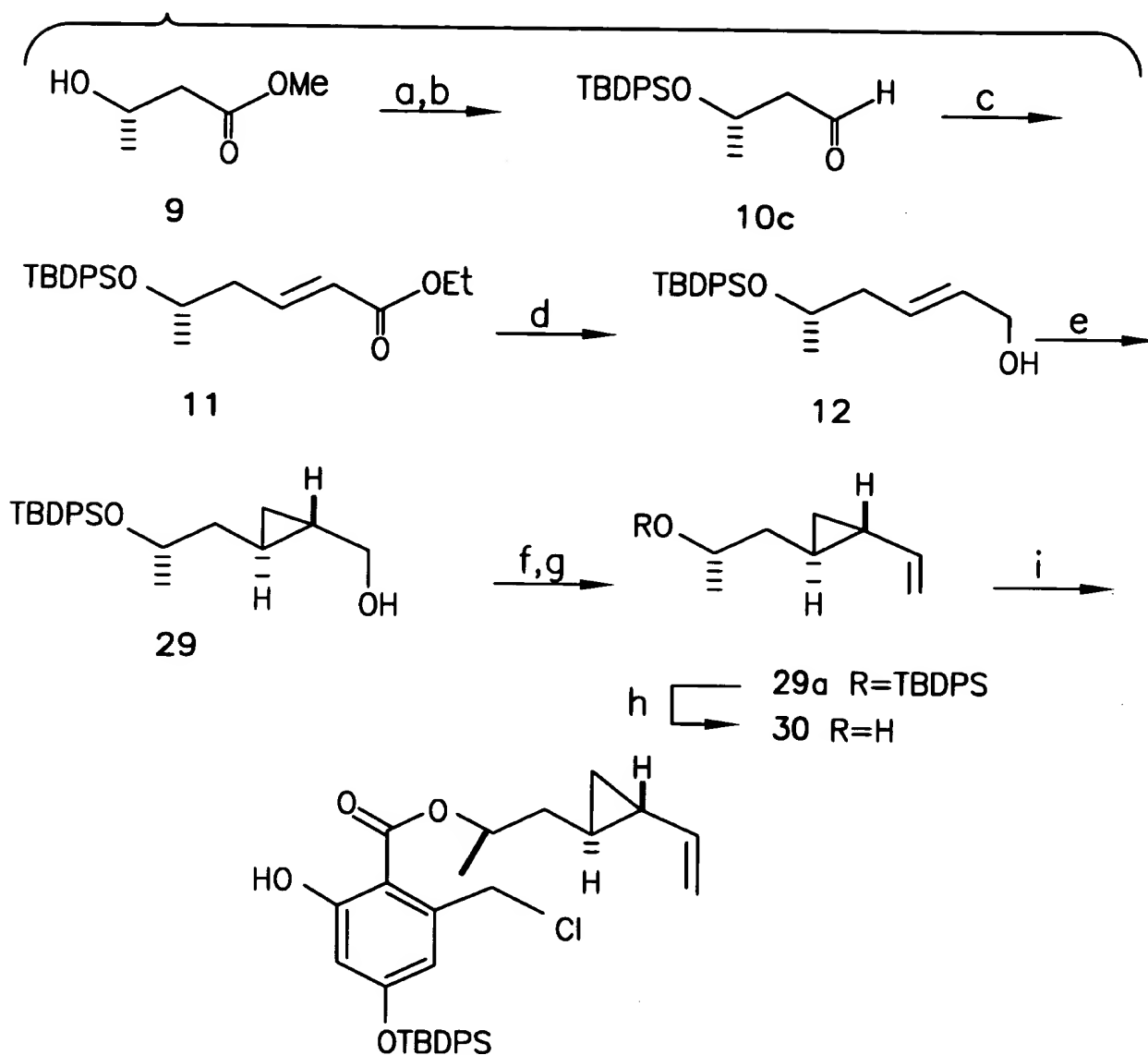


53

54

FIG. 13

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- ^a (a) TBPSCl, imid., >95%; (b) DIBAL-H, -78 °C, 92%; (c) LiCl, DIPEA (EtO)₂P(O)CH₂CO₂Et, 95%; (d) DIBAL-H -20 °C, 96%; (e) (+)-tetramethyltartaric acid diamide-BBu, Et₂Zn, CH₂I₂, 9 >95% ee; (f) SO₃*pyridine, Et₃N, DMSO, 90%; (g) Ph₃PCH NaHMDS, 0 °C, 82%; (h) TBAF, 89%; (i) 7, P(furyl)₃, DIA benzene, 60%

FIG. 14

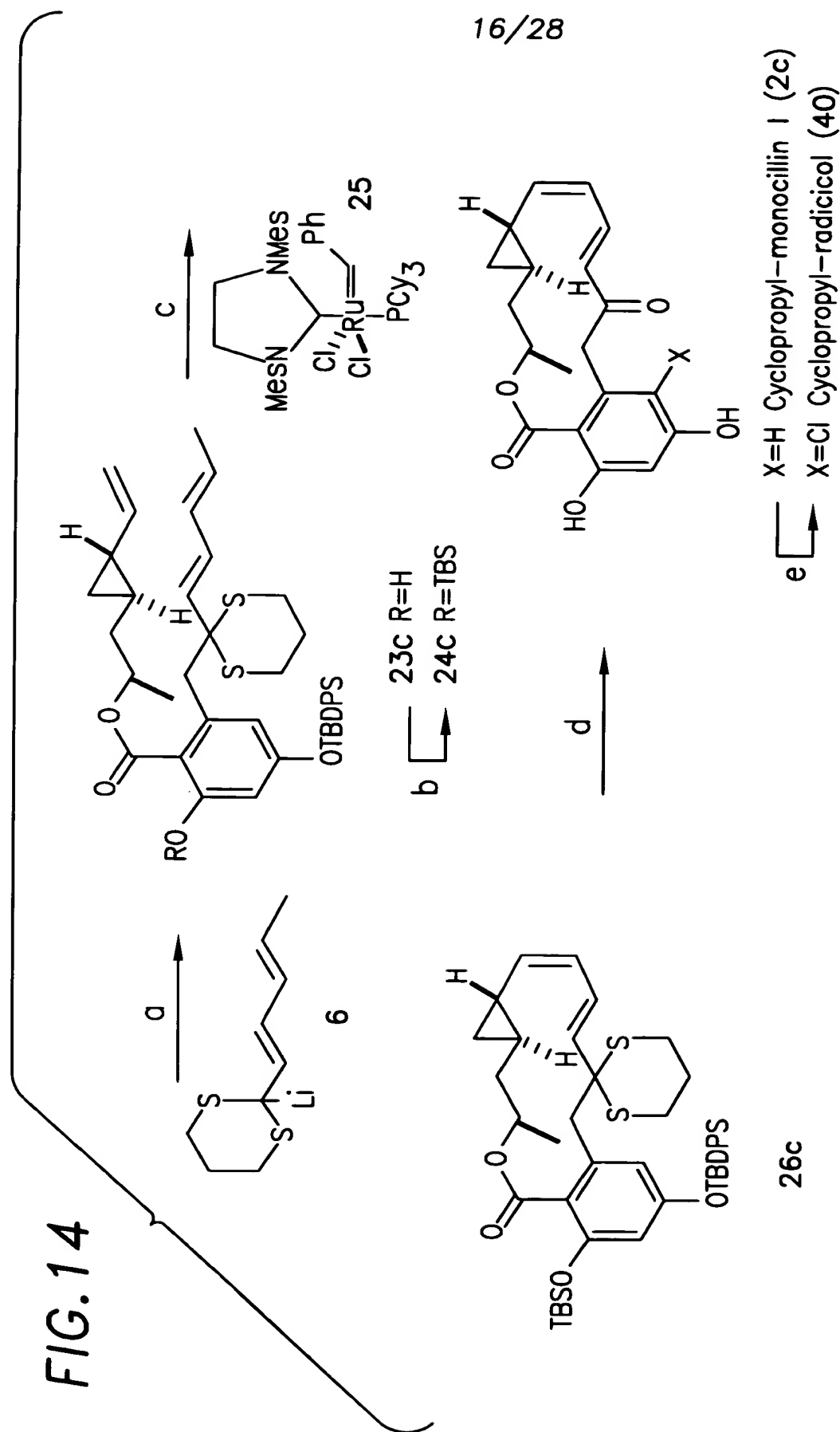
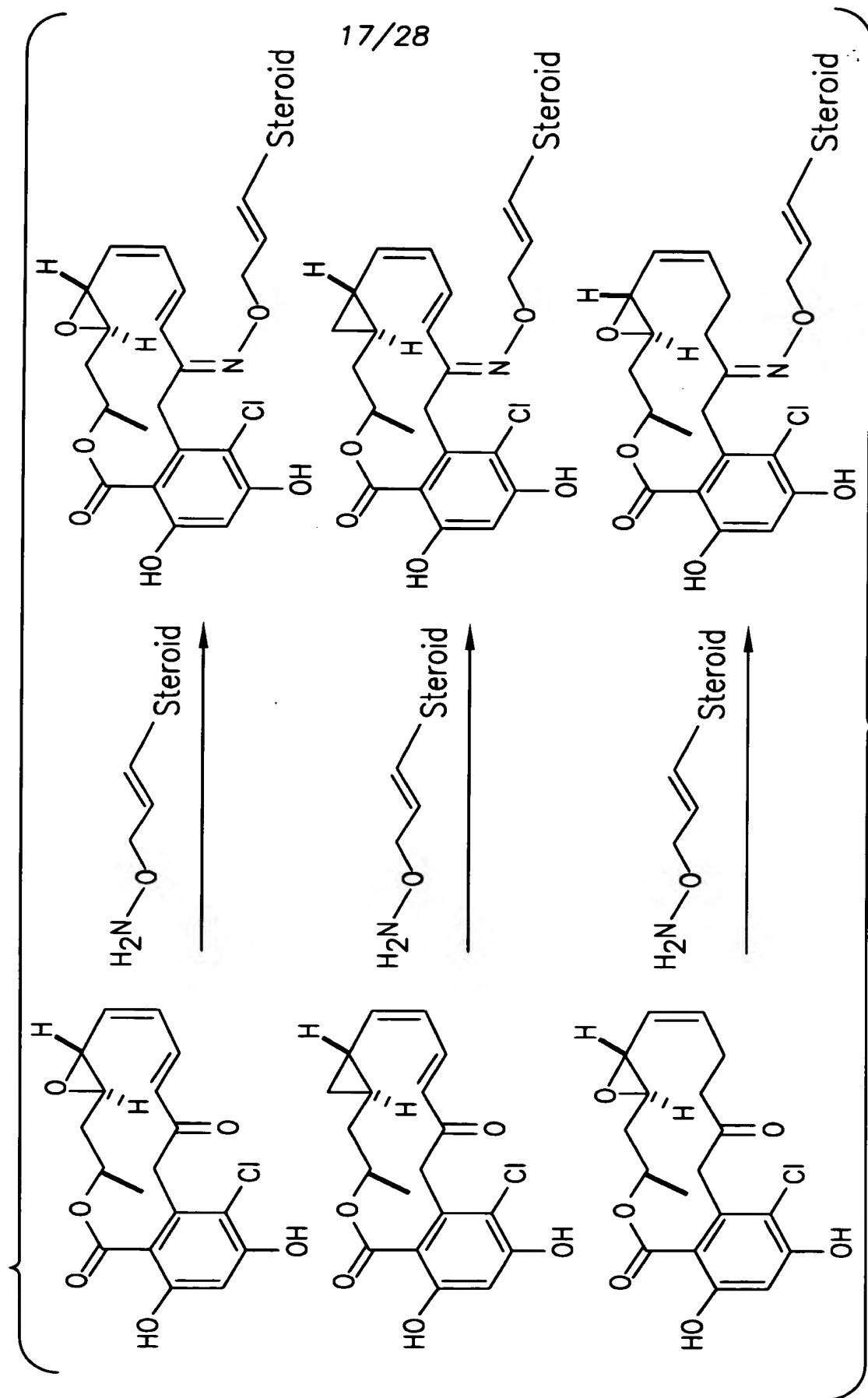
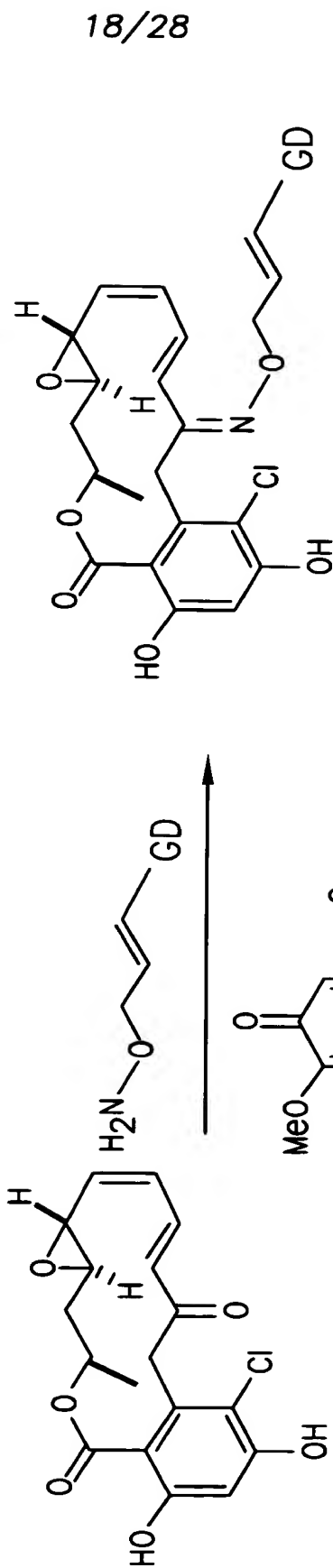
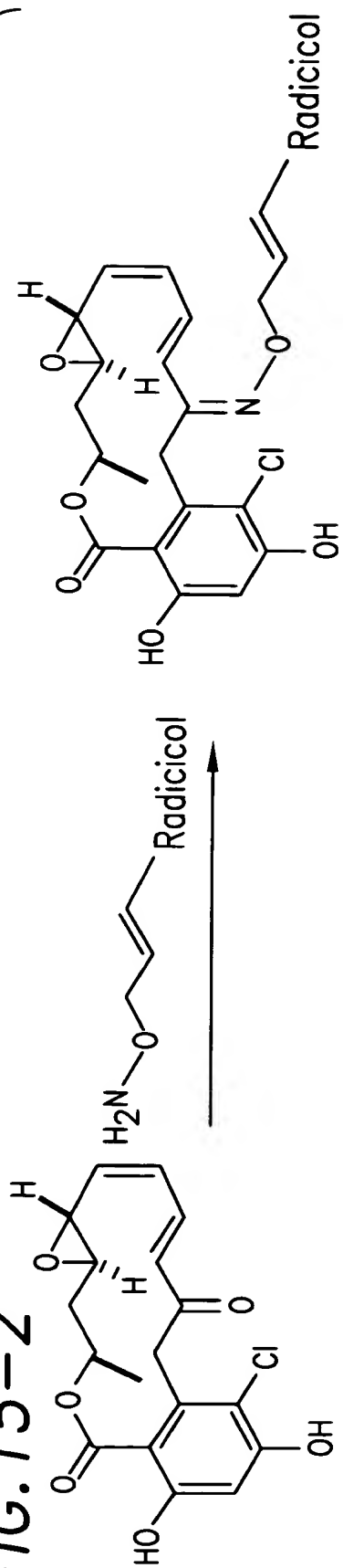


FIG. 15-1



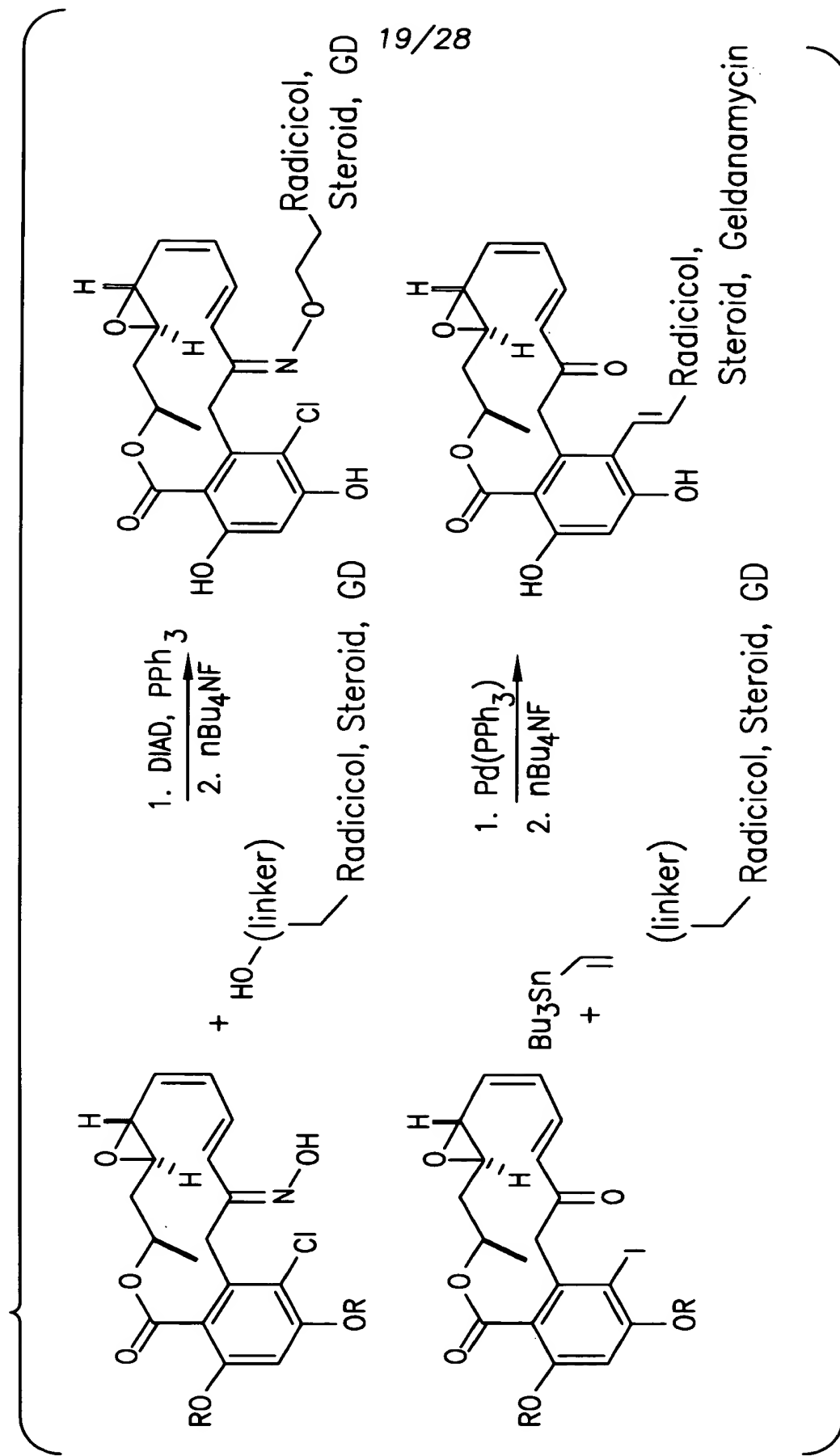
FROM FIG. 15-1

FIG. 15-2



GD=Geldanamycin

FIG. 16-1



FROM FIG. 16-1

FIG. 16-2

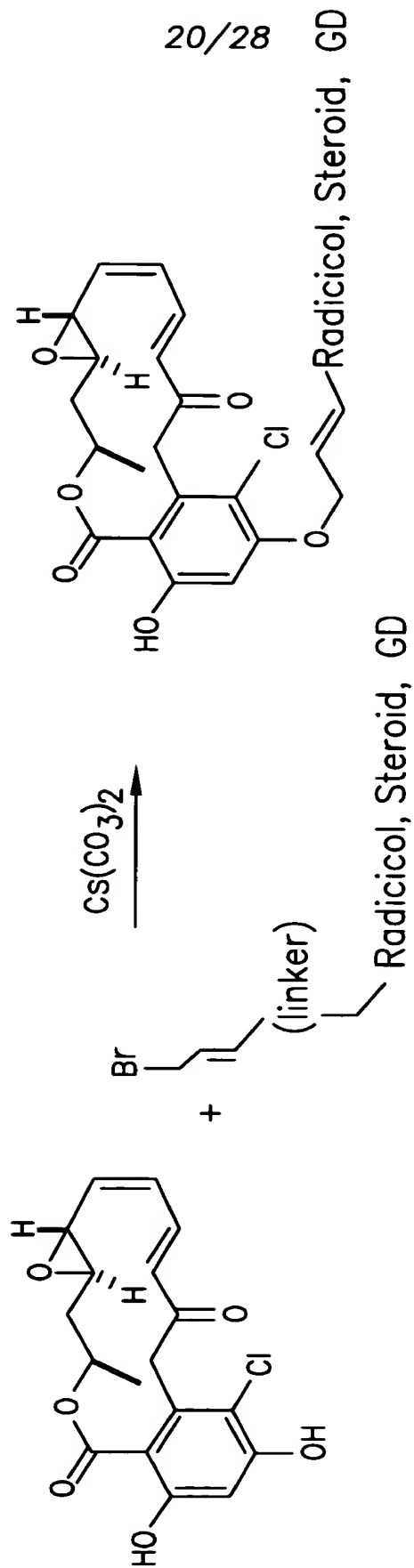
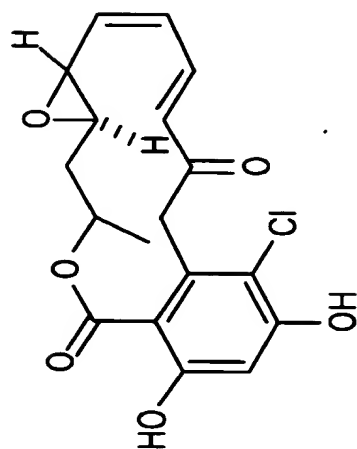
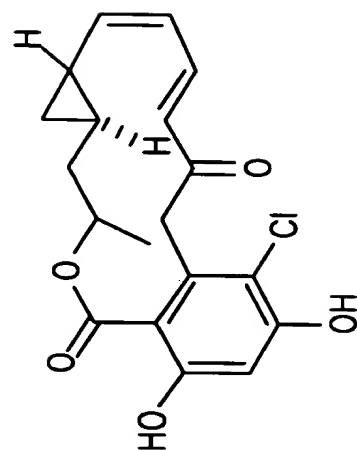


FIG. 17-1

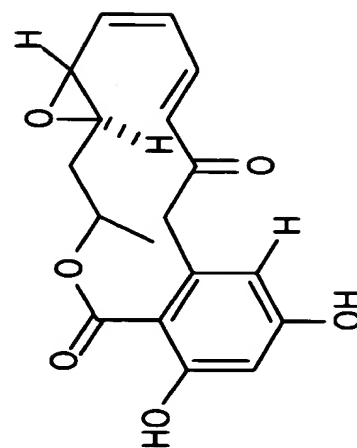
I. Radicicol



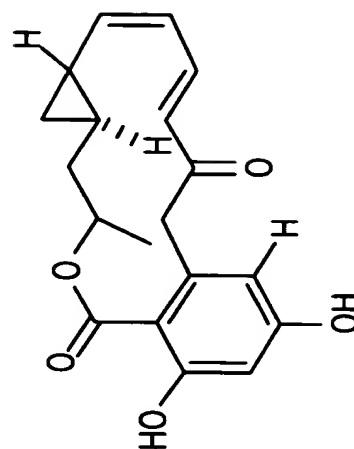
III. Cyclopropyl radicicol



II. Monocillin I



IV. Cyclopropyl monocillin

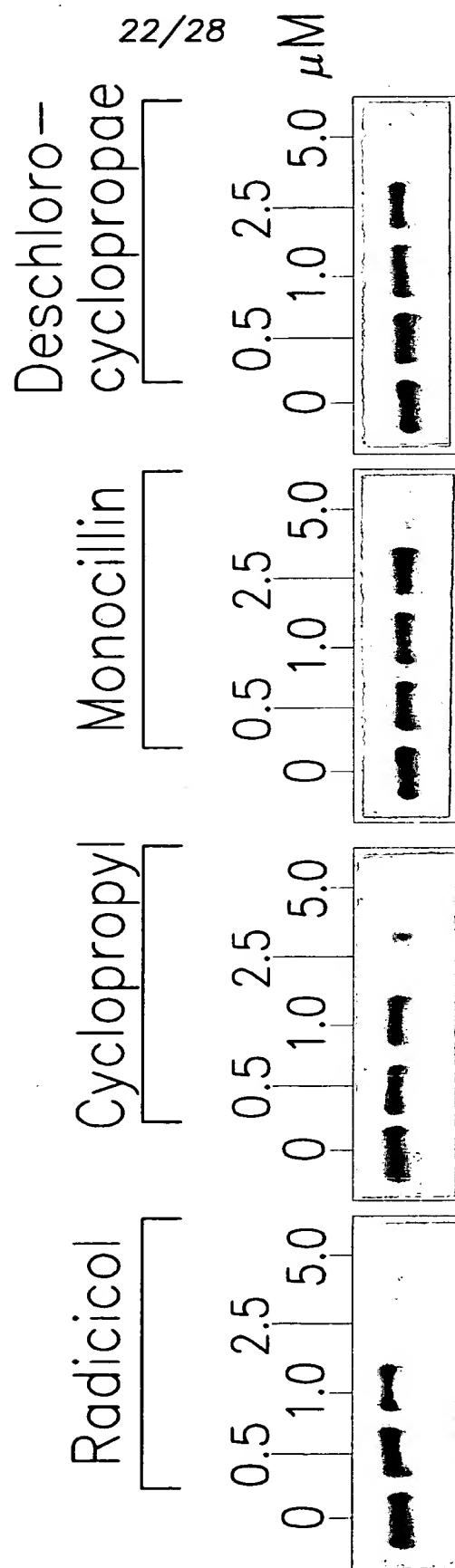


TO FIG. 17-2

FROM FIG. 17-1

FIG. 17-2

MCF7 Cells Treated with Radicicol and Analogues



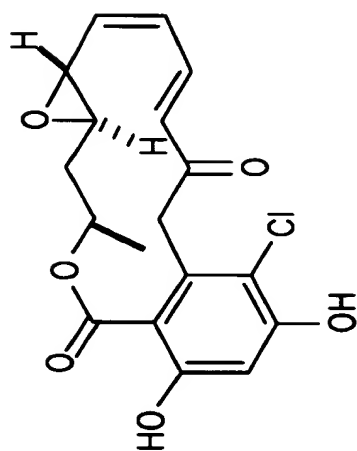
HER2

TO FIG. 17-3

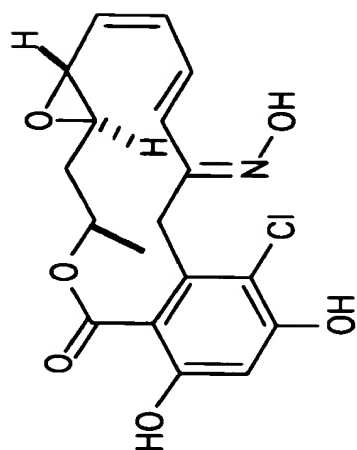
FROM FIG. 17-2

FIG. 17-3

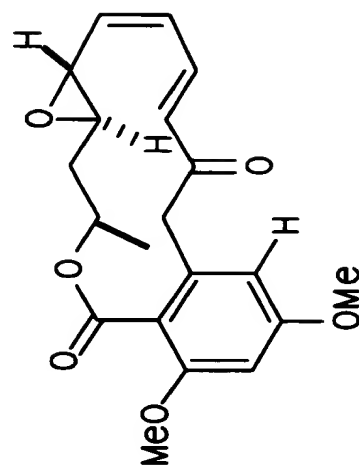
I. Radical



VII. Radical Oxime



V. Dimethyl Monocillin I



VI. Dimethyl Radical

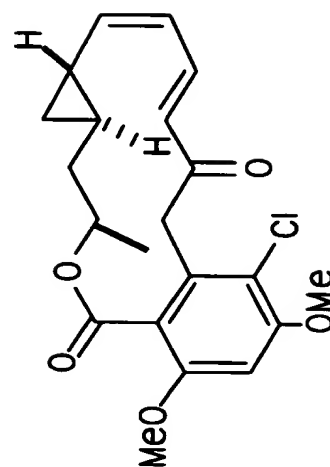
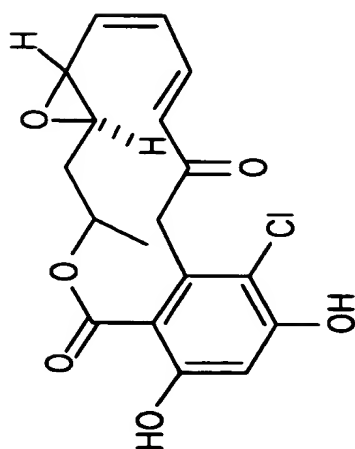
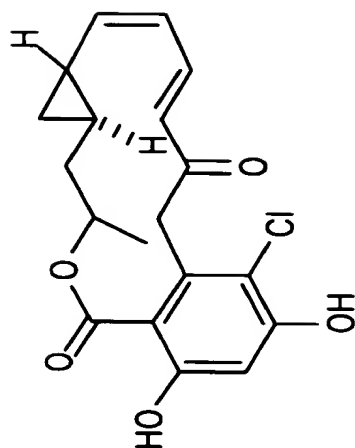


FIG. 18-1

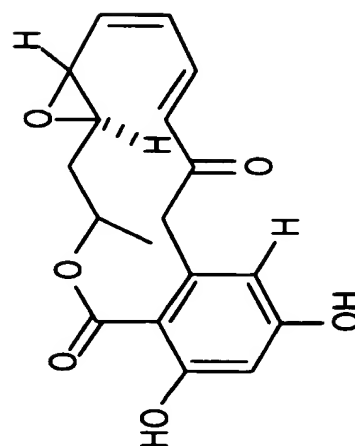
I. Radical



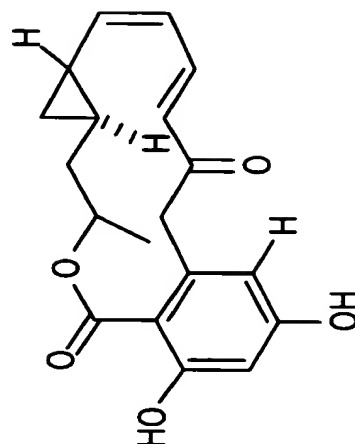
III. Cyclopropyl radical



II. Monocillin I



IV. Cyclopropyl monocillin



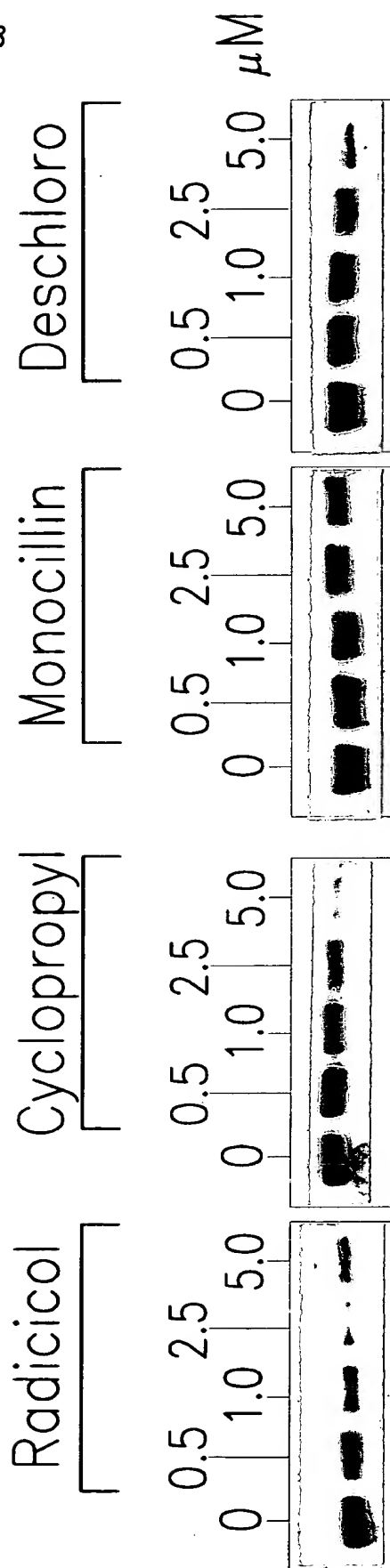
TO FIG. 18-2

FROM FIG. 18-1

FIG.18-2

BT474 Cells Treated with Novel Radicicoliols (24hrs.)

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HER2

FIG.19

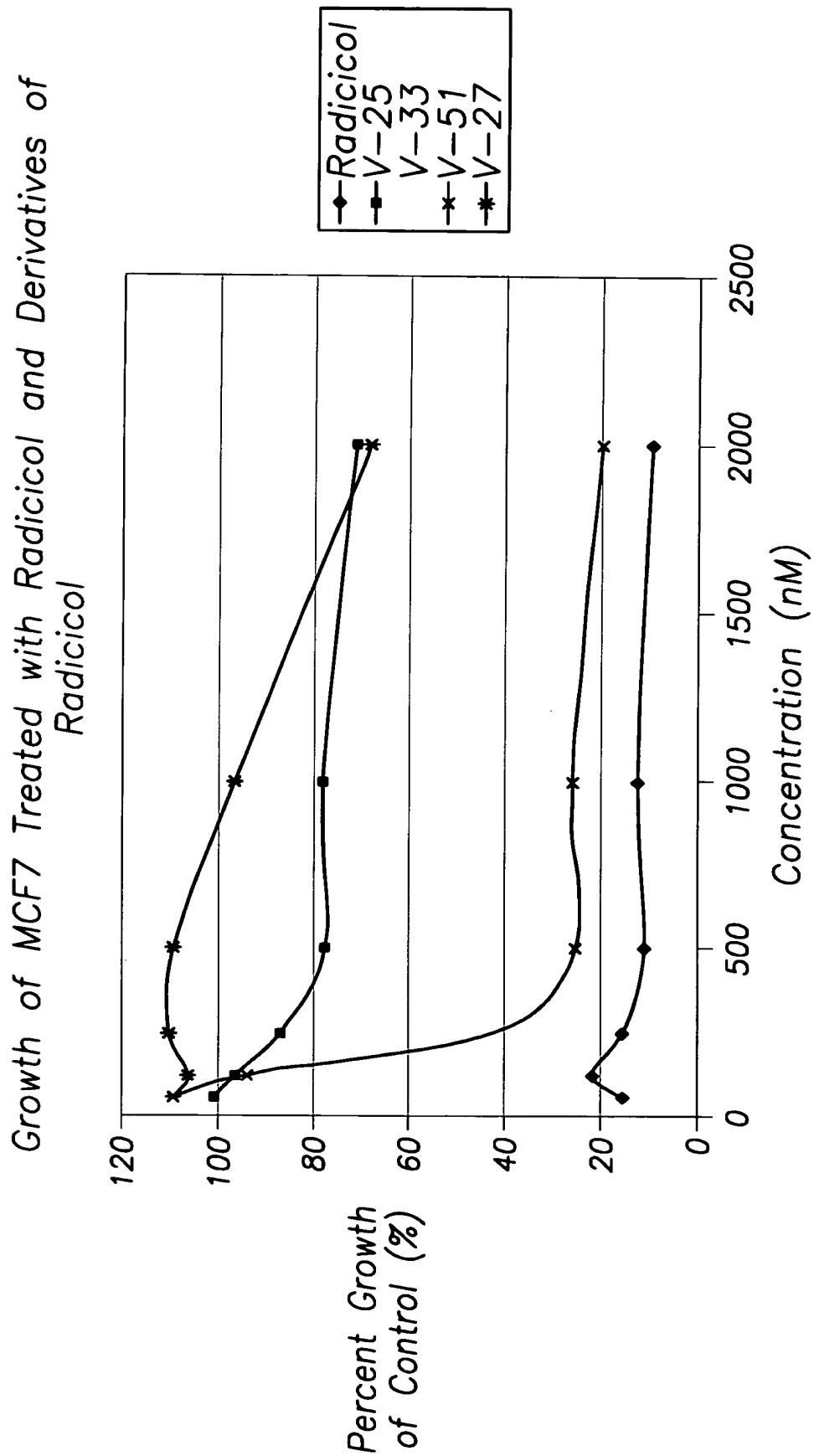


FIG.20

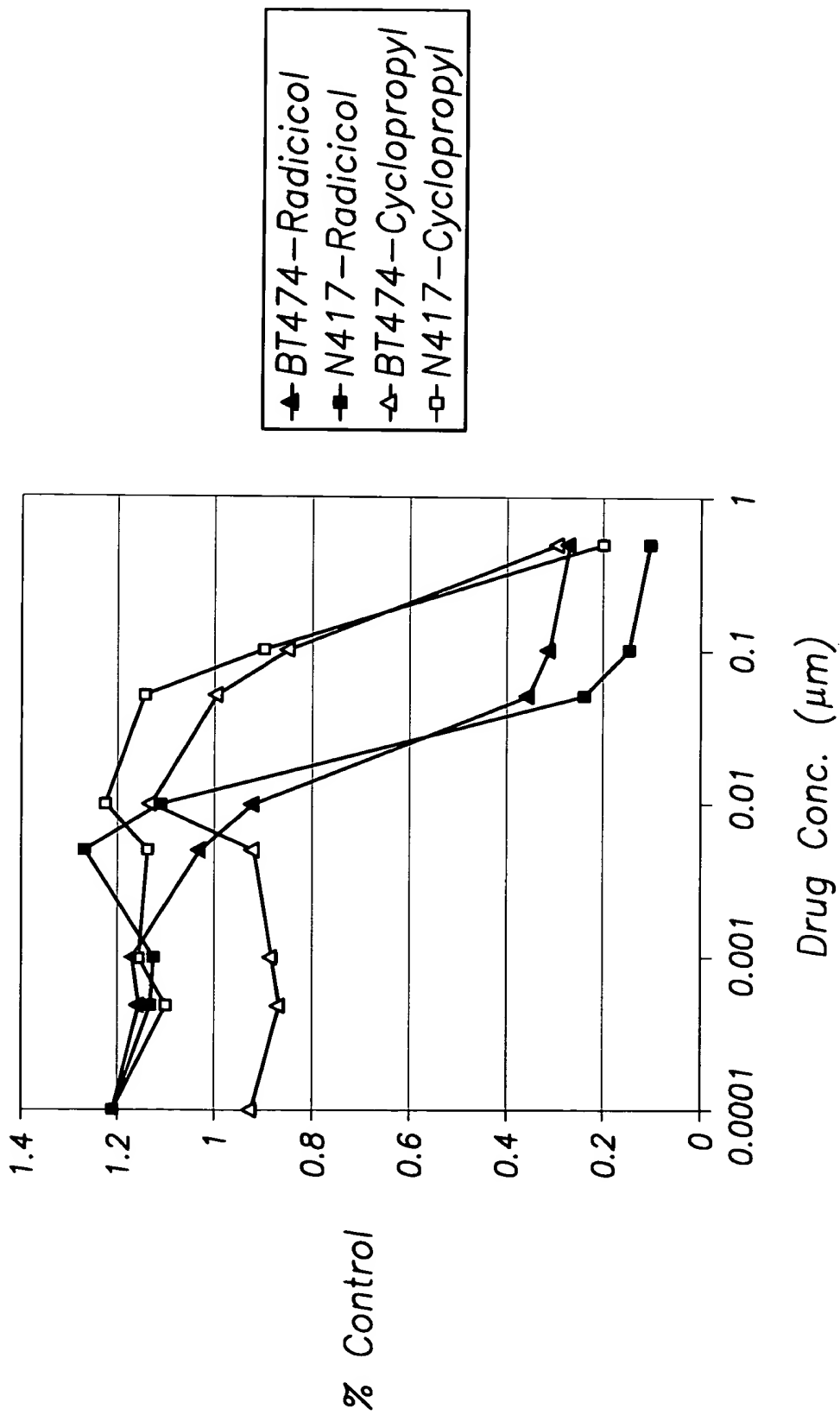


FIG. 21

